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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,500	09/26/2003	Yih-Hsing Lo	LOV13001/EM	8630
23364	7590	05/16/2005	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			MULLIS, JEFFREY C	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/670,500	LO ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Jeffrey C. Mullis	1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) Responsive to communication(s) filed on 26 September 2003.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) Claim(s) 1-26 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-3, 17 and 19 is/are rejected.  
 7) Claim(s) 4-16, 18 and 20-26 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 26 September 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

No IDS has been received by the Office and it is therefore assumed none was submitted.

Claim 3 contains the word "claim2". Correction is required.  
35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: "otheras like", page 5, line 11; "Thomas at all" 3, line 8, Pphsubscript 2PCL and "Tp" in Example 1.

Claims 4-16, 18 and 20-26 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only and cannot depend from other multiple dependent claims and accordingly the reference to other claims "as defined above" is not proper. See MPEP § 608.01(n). Accordingly, the claims 4-16 18, and 20-26 have not been further treated on the merits. Lastly the definitions "as defined above" pertains to a different set of features and claims reciting "as defined above" are also objected to as reciting different sets of features in different claims.

Claims 1-3, 17 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "can be defined" is unclear since this phrase can be interpreted such that product is necessarily the same as that made by blending or may not be made by the recited blending process.

The term "other as like" as recited in at least claims 3 and 17 is subjective since it cannot be objectively be determined when a material is like another.

Claim 17 contains the phrase "dissolving and blend (sic)" and it is unclear if applicants intent "blending" or if instead "a blend" is intended.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 17 and 19 are rejected under 35 U.S.C. 103(a) as obvious over Fink et al (US 6,671,097) in view of Inata et al (US 4,292,151) relied upon for claims 17 and 19.

Fink et al. Disclose a polymeric photonic band gap structure having microdomains and containing "one or more block copolymers or polymeric mixtures involving various blends of homopolymers and/or random copolymers with block copolymers" column 8, lines 24-26 and also discloses modifying the polymeric composition specifically with a

polystyrene/polybutadiene mixture at column 8, lines 37-39. Metal clusters may be chemically combined with the polymeric species at column 14, lines 50-54. The material may be used as a coating at column 14, lines 5-10.

Inata disclose a process for forming a coating in which solvent is evaporated off at room temperature followed by heating (column 2, lines 18-22).

No examples of blends of a block copolymer and organometallic homopolymer and other homopolymers is disclosed nor is the process of claims 17 and 19 disclosed.

However, to produce a composition of block copolymer, organometallic homopolymers and other homopolymers would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention based on the disclosure of Fink since such blends fall within the broad ambit of Fink and in the expectation of adequate results, absent any showing of surprising or unexpected results. With regard to dissolving such a composition and evaporating as in instant claims 17 and 19, use of such in Finks' process would have been obvious to a practitioner having an ordinary skill since Fink disclose formation of coating using his composition and motivated by the secondary reference which disclose a process for producing a coating, absent any showing of surprising or unexpected results.

Any inquiry concerning this communication should be directed to Jeffrey C. Mullis at telephone number 571 272 1075.

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Jeffrey C. Mullis  
J Mullis  
Art Unit 1711

JCM

Jeffrey Mullis, Ph.D.  
Primary Examiner  
Group 4200

